

CLAIMS

What is claimed is:

1. A bread maker, comprising:

a main body having a door opening and forming a bread making space;

a door to open and close the door opening;

a baking tray removably mounted in the bread making space;

a tray sensor, to sense whether the baking tray is mounted in the bread making space;

and

 a controller, to control a bread making process on the basis of a sensing signal from the tray sensor.

2. The bread maker according to claim 1, wherein the tray sensor comprises a sensing member provided in the door that contacts the baking tray when the door is closed; and a sensing switch that generates a sensing signal when the sensing member contacts the baking tray.

3. The bread maker according to claim 1, wherein the tray sensor comprises a sensing member provided in the baking tray that contacts the door when the door is closed; and a sensing switch that generates a sensing signal when the sensing member contacts the door.

4. The bread maker according to claim 1, wherein the tray sensor comprises:

 a sensing member which is supported by an internal panel of the door, passes through the internal panel, and is projected toward the bread making space to contact with the baking tray;

 an operation lever which is interposed between the internal and external panel of the door, is supported by a central shaft of seesaw movement, elastically pushes the sensing member, and performs the seesaw movement as the sensing member moves forward and backward; and

 a sensing switch turned on/off by the seesaw movement of the operation lever.

5. The bread maker according to claim 2, wherein the tray sensor comprises:

 a sensing member which is supported by an internal panel of the door, wherein the sensing member passes through the internal panel and is projected toward the bread making space to contact the baking tray;

an operation lever which is interposed between the internal panel and an external panel of the door, wherein the operation lever;

is supported by a central shaft of seesaw movement,

elastically pushes the sensing member, and

performs the seesaw movement as the sensing member moves forward and backward; and

a sensing switch turned on/off by the seesaw movement of the operation lever.

6. The bread maker according to claim 1, further comprising a door sensor sensing whether the door is closed or not, wherein the controller enables performance of the bread making process when the door is closed.

7. The bread maker according to claim 1, wherein the tray sensor comprises a sensing member in the door that generates the sensing signal when contact is made with the baking tray.

8. The bread maker of claim 7, wherein the sensing member makes contact with the baking tray when the baking tray is properly mounted in the bread making space.

9. The bread maker according to claim 1, wherein the tray sensor comprises a sensing member in the baking tray that generates the sensing signal when contact is made with the door.

10. The bread maker of claim 9, wherein the sensing member makes contact with the door when the baking tray is properly mounted in the bread making space.

11. The bread maker according to claim 1, wherein the tray sensor comprises:
a sensing member;
a pivot arm, with a first end and a second end, mounted on a pivot; and
a sensing switch, wherein;

the sensing member extends into the bread making space so that when the baking tray is mounted in the bread making space the sensing member is driven out,

the sensing member is attached to the first end of the pivot arm such that when the sensing arm is driven from the bread making area the pivot arm pivots and the second end of the pivot arm makes contact with the sensing switch, and

the tray sensor transmits a signal to the controller based on whether or not the sensing switch is in contact with the pivot arm.

12. The bread maker according to claim 1, further comprising a display to indicate if the baking tray is mounted in the bread making space, wherein the indication is based on the sensing signal from the tray sensor.

13. The bread maker according to claim 6, further comprising a display to indicate if the door is open or closed, wherein the indication is based on a sensing signal from the door sensor.

14. A bread maker, comprising:

a main body having a door opening and forming a bread making space;

a door to open and close the door opening;

a baking tray removably mounted in the bread making space;

a tray sensor, to sense whether the baking tray is mounted in the bread making space;

a door sensor, to sense whether the door is open or closed; and

a controller, to control a bread making process on the basis of a sensing signal from the tray sensor and a sensing signal from the door sensor.

15. The bread maker according to claim 14, wherein the tray sensor comprises:

a sensing member;

a pivot arm, with a first end and a second end, mounted on a pivot; and

a sensing switch, wherein;

the sensing member extends into the bread making space so that when the baking tray is mounted in the bread making space the sensing member is driven out,

the sensing member is attached to the first end of the pivot arm such that when the sensing arm is driven from the bread making area the pivot arm pivots and the second end of the pivot arm makes contact with the sensing switch, and

the tray sensor transmits a signal to the controller based on whether or not the sensing switch is in contact with the pivot arm.

16. The bread maker according to claim 14, wherein the tray sensor comprises a sensing member in the door that generates the sensing signal when contact is made with the

baking tray.

17. The bread maker of claim 11, wherein the sensing member makes contact with the baking tray when the baking tray is properly mounted in the bread making space.

18. The bread maker according to claim 14, further comprising a display to indicate if the baking tray is mounted in the bread making space, wherein the indication is based on the sensing signal from the tray sensor.

19. The bread maker according to claim 18, wherein the display further indicates if the door is open or closed, wherein the indication is based on the sensing signal from the door sensor.

20. A bread maker, comprising:

a main body forming a bread making space;
a baking tray removably mounted in the bread making space; and
a tray sensor, to sense whether the baking tray is mounted in the bread making space.

21. The bread maker according to claim 20, further comprising a controller, to control a bread making process on the basis of a sensing signal from the tray sensor.

22. The bread maker according to claim 20, wherein the tray sensor comprises:
a sensing member;
a pivot arm, with a first end and a second end, mounted on a pivot; and
a sensing switch, wherein;

the sensing member extends into the bread making space so that when the baking tray is mounted in the bread making space the sensing member is driven out,

the sensing member is attached to the first end of the pivot arm such that when the sensing arm is driven from the bread making area the pivot arm pivots and the second end of the pivot arm makes contact with the sensing switch, and

the tray sensor transmits a signal to the controller based on whether or not the sensing switch is in contact with the pivot arm.

23. The bread maker according to claim 20, further comprising a display to indicate if

the baking tray is mounted in the bread making space, wherein the indication is based on a sensing signal from the tray sensor.